AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph no. [0002] of US Publication No. 2007/0081369 A1, with the following amended paragraph:

Fig. 6 shows a system of a conventional PWM cycloconverter. In Fig. 6, 1 denotes a three-phase AC power source, 2 denotes a three-phase AC reactor, 3 denotes a three-phase AC capacitor, 4 denotes a bi-directional switch group, 5 denotes a motor functioning as a load, 6 denotes a three-phase AC reactor, 7 denotes a PWM converter for converting AC into DC, 14 denotes a smoothing capacitor, which is a DC voltage means, ~~9 denotes~~ $9_{1\text{-}3}$ denote a detection current signal of the three-phase AC power source, 10 denotes a CT for detecting electric current, which is a current detection means for detecting electric current of the three-phase AC power source, 11 is a CT for detecting electric current, which is a current detection means, [[12]] $12_{1\text{-}3}$ is a detection current signal of the CT for detecting electric current and ~~15 denotes~~ $15_{1\text{-}9}$ denote snubber circuits provided on respective bi-directional switches of the bi-directional switch group 4.

Please replace the paragraph no. [0039] of US Publication No. 2007/0081369 A1, with the following amended paragraph:

Now, an operation of the invention will be described. First, in the PWM cycloconvereter in Fig. 1, the three-phase AC power source 1 is directly connected to a three-phase output, which is input current of the motor 5, by means of a group 4 of totally nine bi-directional semiconductor switches provided between the three-phase AC power source 1 and the three-phase output and arbitrary frequency and voltage can be outputted without converting the AC power source voltage into DC. At the inputs of the bi-directional semiconductor switch group 4, however, pulse current flows. Accordingly, the three-phase AC reactor 2 and the three-phase

AC capacitor 3 are used for forming an input filter. In accordance with the invention, providing the DC power source 8 other than the AC power source 1 and the small-sized PWM converter 7 in the DC power source 8 so as to supply a place before an input filter of the PWM cycloconverter with current allows the above-mentioned resonance current due to the input filter to be kept down. Inputting the input current signal [[9]] $9_{1\text{-}3}$ detected by means of the CT for detecting electric current 10 to a control part of the PWM converter 7 as a current control means, performing comparison with any desired current waveform of the PWM cycloconverter and supplying the current of quantity equal to correction allow an ideal input current waveform to be achieved. Further, detecting the correction current signal [[12]] $12_{1\text{-}3}$ allows control performance to be improved. As an example of a method of correction, in the case that resonance current is only a subject for control among high harmonic components of the input current, comparing the input current signal [[9]] $9_{1\text{-}3}$, with an ideal sine wave and letting correction current flow from the PWM converter 7 enable the resonance current to be kept down. In this case, the resonance current varies in accordance with design of the filter, but a current value thereof is sufficiently smaller than that of the whole input current. This means that the capacity of current of the PWM converter 7 can be also small, so that it costs little expense.

Please replace the paragraph no. [0041] of US Publication No. 2007/0081369 A1, with the following amended paragraph:

In Fig. 3, used is a DC clamping type snubber circuit 14 for the DC power source 8 in Fig. 1 and the diode rectifier 13 in Fig. 2. There is a case that the DC clamping type snubber circuit 14 is used as a protection device for a bi-directional semiconductor switch in the PWM cycloconverter. Figs. 4 and 5 show circuitry of the snubber circuit 14 in Fig. 3. A structure such as a diode group for a snubber [[15]] $15_{1\text{-}9}$ and a diode group for a snubber 16 can be considered

for Figs. 4 and 5, respectively. Using such a snubber circuit 14 as the DC power source voltage of the PWM converter 7 in the invention allows surge energy generated in switching to be used as correction current without being wasted, so that further higher efficiency can be achieved in a whole system.